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REMARKS

Claims 6, 7 and 11-19 have been canceled. Claims 1-4 and 8 have been amended. Accordingly, upon entry of the above amendments, claims 1-5 and 8-10 will remain pending and under consideration in the above-referenced application.

It is believed that the only remaining issue in this application is whether pending claims 1-5 and 8-10 are allowable over Hsin (U.S. Patent Application Publication No. 2004/0150740) in view of Melman et al. (U.S Patent No. 6,564,018).

It is respectfully submitted that the claims have been amended to clearly distinguish over the teachings of Hsin in view of Melman et al. In particular, the applied prior art references do not teach or suggest an optical imaging element 24 on an integrated circuit 16 electrically coupled to an electrical circuit 14 on an optically transmissive substrate 12 by an electrical connection 30 between electrically conductive pads 28 on a face 26 of the integrated circuit and electrically conductive leads 15 of the electrical circuit 14 on the optically transmissive substrate 12. In particular, frame layer 56 of Hsin is not an electrical circuit, and is not on transparent layer 60. Therefore, Hsin does not define or provide any reason for defining an electrical circuit on an optically transmissive substrate. To the contrary, Hsin teaches that frame 56 has signal input terminal 64 formed on its top surface, and that such terminals are electrically connected to printed circuit board 40 (see paragraph 13, lines 5-9 of Hsin). Circuit board 40 is spaced from transparent layer 60. Thus, circuit board 40 of Hsin is not on an optically transmissive substrate, as required by the pending claims.

Rather than achieving the objectives of the claimed invention, which include providing an optical sensing package having a smaller parts count and a smaller physical package that requires fewer optical elements, thereby reducing radiation losses and reflections (see paragraph 13 of the specification), Hsin teaches a more conventional arrangement in which a circuit board 40 is physically distinct from and spatially separated from transparent layer 60. This teaching by Hsin (either with or without Melman et al.) does not provide any suggestion or reason for achieving the claimed invention in which electrical circuitry is provided on an optically transmissive substrate.

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Specific support for the amendments can be found in FIG. 1 and paragraphs 19-23 of the specification. In particular, an optically transmissive substrate 12 having an electrical circuit 14 is described at paragraph 19 and shown in FIG. 1. A circuit 14 including electrically conductive leads 15 is described at paragraph 22 and shown in FIG. 1. An integrated circuit 16 including an optical imaging element 24 and electrically conductive pads 28 on a face of integrated circuit 16 is shown in FIG. 1 and described at paragraph 21. An integrated circuit 16 electrically coupled to the optical imaging element 24 through an electrical connection 30 between the electrically conductive pads 28 on the integrated circuit 16 and the electrically conductive leads 15 on the optically transmissive substrate 12 is described at paragraph 23 and shown in FIG. 1.

CONCLUSION

In view of the above amendments and remarks, is it respectfully submitted that the claims patentably distinguish over the teachings of Hsin in view of Melman et al., and that the application is in condition for allowance. Accordingly, a Notice of Allowance is earnestly solicited.

Respectfully submitted,

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